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ABSTRACT

Preliminary findings of an analysis of Head Start research evidence amassed from 1965 to the present are reported in this document, along with a summary of conclusions from related studies of preschool programs. Specifically presented are long-term findings of the Consortium for Longitudinal Studies concerning the lasting benefits of preschool experience and the Perry Preschool Project's documented evidence of the cost-effectiveness of early childhood programs. It is asserted that these research-oriented projects demonstrated convincingly that the educational attainments and life circumstances of low income and minority children can be significantly improved. Discussion then centers on wide-ranging, up-to-date reviews that have recorded comprehensive and socially valuable Head Start program outcomes. Specifically summarized are findings of the Head Start Evaluation, Synthesis, and Utilization Project, which provided findings concerning the impact of Head Start on the cognitive and socioemotional development of children, child health, families of participating children, and community involvement. Preliminary findings of this report suggested that the pivotal issue in early childhood programs is no longer "Is preschool education effective?" or, "Does Head Start work?" Current relevant issues now focus specifically on (1) the combination of program variables leading to the greatest developmental gains at reasonable cost, and (2) the continuity of learning and developmental gains achieved in preschool and at home with curricula of the public schools. (RH)

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HEAD START: A REVIEW OF RESEARCH WITH IMPLICATIONS FOR PRACTICE IN EARLY CHILDHOOD EDUCATION

Remarks of Raymond C. Collins, Ph.D., Administration for Children, Youth and Families, Department of Health and Human Services, before the Annual Meeting of the American Educational Research Association at New Orleans, Louisiana, April 26, 1984.

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Ground Swell for Early Childhood Programs

We are on the threshold of a resurgence of interest in child care and early childhood education. The post World War II baby boom generation is now of child bearing age and small children are once again crowding America's neighborhoods. Evolving patterns in the home and workplace have led to a majority of mothers with small children entering the labor force. Cries are heard for family day care for infants and toddlers, for more day care centers for preschoolers, for full day kindergarten and for extending the age of formal schooling downward tc age four or so.

President Ronald Reagan's administration proposes and the Congress passes a hefty budget increase for Head Start, bringing program funding close to a billion dollars for FY 1984. Even a somewhat trimmed Social Services Block Grant provides roughly a half billion dollars a year for child care. The Child Care Tax Credit approaches two billion dollars in benefits annually. Preschool programs are no longer focused on the poor and minorities; child care is now a

preoccupation of the middle class.

Demographic and socioeconomic realities are forcing a rethinking of goals and strategies for early intervention. The higher budget stakes are certain to trigger closer attention by decision makers and policy analysts. Thus far, the calls for educational reform from a plethora of distinguished commissions have not highlighted the theme of early childhood programs (see, for example, "A Nation at Risk: The Imperative for Educational Reform," 1983), but educational strategists may remedy that oversight in the future.

Assessing the Research Base

How well prepared is the state of the art in early childhood research to respond with answers for policy and practice should this predicted ground swell materialize? One recent study suggests that the answer is mixed at best (Bush and White, undated). In a systematic examination of over a thousand reviews of the literature dealing with the efficacy of early intervention, Bush and White uncovered contradictory evidence and serious methodological weaknesses. Notwithstanding general support for early intervention, they report on controversy over the benefits, particularly with respect to the cost effectiveness of long term gains. A fatal weakness of the research base they point out is that most review articles address only a handful of studies and there is little overlap in the studies considered by different reviewers. Thus a lack of consensus of findings is in part a function of the absence of convergence in the evidence examined. While there are probably only rare instances where unscrupulous reviewers "predetermine" the findings by the studies they elect to include in their analysis, the pitfalls of unconscious bias and simple errors of omission are all too obvious.

Purpose of This Paper

This paper reports on preliminary findings of a project undertaking an in depth analysis of the Head Start research evidence amassed from 1965 to the present. As noted below, the review attempts to avoid the pitfalls documented by Bush and White by examining all the relevant data. That even this approach falls short of a panacea will be apparent when we assess the strengths and weaknesses of the emerging methodology. Since the corollary aim of this paper is to assess, albeit briefly, the implications of Head Start research findings for practice in early childhood education, conclusions from related studies of preschool programs are summarized as well. In the latter instance, the risks of selectivity must be acknowledged unabashedly.

We are interested in such questions as:

o What are the outcomes of a Head Start or other preschool experience?

o Can early intervention programs help to equalize educational opportunity? What is the value of early learning to later educational attainment?

o What other benefits stem from preschool programs beyond intellectual enhancement?

o What combinations of program variables produce the desired outcomes?

Data from research oriented preschool programd and Head Start have recently become available to help answer these questions. (For earlier reports on these findings see Collins, 1983; Collins and Deloria, 1983).

Long Term Effects of Early Education

There are two series of reports on the lasting benefits of preschool

that mark a watershed in our awareness and understanding of that phenomenon. First are the long term findings of the Consortium for Longitudinal Studies (Lazar & Darlington, 1982), which represents a landmark collaboration between a dozen eminent investigators who launched 11 independently run preschool experiments during the 1960s. Second are follow up results of the Perry Preschool Project (Schweinhart & Weikart, 1980), included in the Consortium's study, but compelling separate attention because of the quality of the program's longitudinal evidence that makes it perhaps the best single index of the potential effects of early education on children's achievement.

The Consortium's study pioneered conservative analytical techniques to conduct multisample secondary analyses of the original preschool data together with a coordinated follow up of participants in the 11 programs who were aged 9-19 at the time. Results show lasting gains of preschool intervention in four areas: school competence, developed abilities, children's attitudes and values and impact on the family.

The most striking impact on school competence was the extent to which preschool programs prepared children to respond to the day-to-day, year-in-year-out expectations of teachers and schools. Real world indicators of those abilities were reduced likelihood of assignment to special education or grade retention. The rate of special education placement was 14% for former preschool participants but 29% for children in the control group. Grade retention was 25% for the preschool group and 31% for the control children. An examination of the composite variable to determine which children were able consistently to meet the school's requirements (that is, never placed in special classes or retained in grade) revealed a failure rate of 44% among control children but only 25% for the preschool program

graduates.

Not only did preschool programs better equip children to meet the school's basic requirements for adequate performance, but the projects promoted mastery of developed abilities, to the extent that these are measured by achievement test scores. Former preschool participants outperformed controls on both math and reading achievement scores, although the math results are more robust and lasting. At grade three, program graduates scored higher than controls on both math and reading. At grades four and five, the advantage of the preschool group was maintained on math but not reading. By grade six, differences had disappeared in both math and reading.

IQ test results, another dimension of developed abilities, showed the by now familiar profile of high initial gains immediately after participation in preschool, lasting for at least two to four years and eventually fading. By the time of the last follow up testing, IQ differences had disappeared between treacment and control children in most Consortium projects.

Participation in preschool programs led to favorable changes in the children's achievement orientation. Children with preschool program experience were more likely than controls to cite school or job achievements, rather than other reasons, in responding to the question "tell me something you've done that made you feel proud of yourself." A median of 78% of preschool graduates gave achievement-related responses compared to 66% of non-participants. This was particularly true of younger children and older girls. For example, older females who had attended early childhood programs responded with school-related achievements or pride in helping at home; control girls most often said they were proud of having babies or had nothing to be

proud of.

Some of the findings on family impact hint that early education may have created a more supportive familial context for achievement orientation. Mothers whose children had participated in preschool reported being more satisfied with their children's school performance (even after controlling for actual performance) than were control mothers. Mothers of former preschool children had higher aspirations for their child's occupational success in later life than the children had for themselves, whereas this pattern was less consistently true for control mothers. The picture emerges of mothers (and, by extension, perhaps families) proud of their youngster's present day achievements in school and holding out high expectations of future job attainments.

As noted above, the Perry Preschool Project deserves special attention in terms of its insights into the long term impact of early education. The project was carefully designed, meticulously researched and the participants have been followed for a longer period than for the other Consortium programs. By eighth grade, the preschool group scored more than one grade level higher than controls on reading, language and arithmetic tests. Of eighth grade youngsters with early education program experience, 49% of these low income and minority students scored above the fifth grade level, while only 13% of their control peers performed at that level.

The Perry Preschool Project offers the most completely documented evidence of the cost-effectiveness of early childhood programs (Weber, Foster & Weikart, 1978; Weikart, 1982). The most recent cost-benefit findings as of age 19 showed that for every $1,000 that was invested in the preschool program, at least $4,130 has been or is expected to

be returned to society based upon estimated school district savings, reduced costs of delinquent behavior and increased lifetime earnings of program participants.

These findings of early childhood programs hold out the tantalizing promise that life-long educational excellence might cost appreciably less were the base of participation in preschool programs broadened. These research oriented projects demonstrated convincingly that the educational attainments and life circumstances of low income and minority children can be significantly improved.

Evidence on the Head Start Experience

But is it feasible to transport these undeniably attractive gains of early childhood programs from the research arena to the real world of neighborhoods and communities nationwide? To what extent is this happening already in programs like Head Start?

Head Start serves roughly 430,000 children and their families in over 1,200 communities. What does the available evidence on past performance suggest about the benefits we can realistically expect from the nation's social investment in Head Start?

Over the past few years, wide ranging and up-to-date reviews of the evidence on Head Start's effectiveness have become available (Collins, 1981; Mann, et al., 1977; Zigler & Muenchow, 1980; Zigler & Valentine, 1979). In contrast to the disappointing findings of the Westinghouse-Ohio University evaluation of Head Start that failed to find worthwhile gains (Cicirelli, et al., 1969), these later reports have recorded comprehensive and socially valuable program outcomes.

Until recently, however, there was no practicable way to encompass the immense scope of the Head Start literature in a coordinated and thoroughgoing analysis. Nor was it possible to marshall modern

scientific techniques so that the resultant findings would compel consensus (or, at least, spark further constructive inquiry) rather than invite skepticism and argument. Such an approach is now at hand. The Head Start Synthesis Project, an initiative of the Administration for Children, Youth and Families, under contract with CSR, Inc., a Washington, D. C. based consulting firm, is an ambitious attempt to analyze Head Start data and make the results widely available. The project will operate from October 1981 through Fall 1984.

The Head Start Evaluation, Synthesis and Utilization Project (the full title) will accomplish seven tasks (resulting in about a dozen reports, three of which have been printed and are available for mass distribution):

1. Obtain all Head Start research and evaluation studies from the program's inception in 1965 through the project's conclusion in 1984 (roughly 1,500 studies have been compiled to date, over 700 with original data);

2. Prepare an annotated bibliography of the studies (CSR, 1983a);

3. Conduct a traditional literature review to summarize the main findings (CSR, 1983b);

4. Prepare five outcome reports on the impact of Head Start on children's cognitive development (CSR, 1983c), socioemotional development, health and on families and communities (the reports on families and communities are available in draft — CSR, 1984a; CSR, 1984b);

5. Prepare selected policy issue reports;

6. Prepare a list of Congressional reports related to Head Start (available in draft); and

7. Produce a final report that includes an overall non-technical summary of the project's principal findings as well as a final synthesis of program outcomes in all domains based on a reanalysis of the completed data base.

Policy Issues

Three of the topics for the policy issue reports have been selected, namely: 1) the effects of time in Head Start on children's cognitive development and on family impacts; 2) the effects of classroom and staff charactertistics on children's cognitive development and on family impacts; and 3) the long term impact of Head Start. Examples of other policy topics under consideration are:

o What is the effect of Head Start on parent involvement, parent education and family functioning? What is the effect of parent involvement, parent education and family functioning on children's development?

o What effect do curriculum and teaching strategies have on children's development? How do programs that emphasize language usage affect children's development? How do teachers' behavior and attitudes affect children's development?

o What is the impact of Head Start on bilingual-multicultural children?

o What is the impact of Head Start on handicapped children?

Methodology

The Head Start Synthesis Project utilizes the twin perspectives of a traditional literature review and a new mode of analysis called meta-analysis. Meta-analysis applies scientific principles and statistical techniques to analyze findings across many research reports in much the same fashion that data analysts explore results

within a single study.

By converting the outcomes from each study to a common metric, a standard (z) score or effect size, meta-analysis enables the investigator to synthesize the magnitude of gains reported by many researchers. An effect size, the basic way of keeping score for outcomes in meta-analysis, is generally calculated by subtracting the mean score for the no treatment group from the mean score for the treatment group and dividing by the standard deviation of the no treatment group. Each paper describes the universe of studies considered and the specific approach to calculating effect sizes utilized. The methodology has been refined during the life of the project in order to arrive at more robust estimates of the statistical magnitude of Head Start's impact on development. The approach currently favored is to utilize as an effect size an outcome measure based on a comparison of the performance of two groups. Within any one study, there can be any number of such two way comparisons. For each comparison, there can be a number of effect sizes based on different developmental outcomes measured or based on the same outcome compared at different points in time.

Considerable discretion must be exercised in deciding what studies and variables to combine and how to combine them to avoid performing mindless calculations on "apples and oranges." Even when used with care, meta-analysis has many pitfalls. Nor does the approach purport to provide total answers to the full spectrum of important questions. All caveats considered, meta-analysis is an invaluable addition to the analyst's kit of tools. In reports of the Head Start Synthesis Project, we will be attempting to establish a public "audit trail" in coding variables and reporting findings so the results can be

independently replicated by other investigators.

In the interests of brevity, this article combines findings from the classic literature review and the meta-analysis (the latter is available thus far on the topic of children's cognitive development and, to a limited extent, on family impacts). Since the results are preliminary, subject to further data collection and analysis, the selected findings presented herein are those that are particularly robust and less vulnerable to being reversed. In the main, the conclusions from the twin modes of analysis are cross-validating.

Head Start Outcomes

The findings are organized to answer the following five questions about the outcomes of a Head Start experience:

1. What impact does Head Start have on the cognitive development of children?

2. What impact does Head Start have on the socioemotional development of children?

3. What impact does Head Start have on child health?

4. What impact does Head Start have on the families of participating children?

5. What impact does Head Start have on the community?

Cognitive Development

The most striking finding is the extent to which Head Start has grown more effective over time. The impact of Head Start on children's cognitive and language development was nearly twice as great after 1970 as in the start-up years of 1965-69. Table I includes effect sizes during the earlier and later periods for three different types of cognitive outcomes.

Table I. Cognitive Gains by Period of Head Start

Type of Outcome	1965-69	1970-81
Basic Competency	.32	.50
	(n=127; S=30)	(n=52; S=19)
Readiness	.38	.50
	(n=69; S=21)	(n=68; S=18)
Achievement	.10	.24
	(n=75; S=16)	(n=39; S=15)

n= Number of Effect Sizes

S= Number of Studies

Cognitive tables are adapted from CSR, 1983c.

All cognitive gains in the latter period are pronounced, with moderate effects on achievement and showing the strongest outcomes in basic competence (such as IQ and problem solving) and readiness for school. These cognitive effects are educationally meaningful in accordance with informal standards widely accepted by researchers that gains of a quarter standard deviation (0.25 SD — comparable to an effect size of 0.25) are likely to reflect important real world differences in children's functioning that can be expected to result in noticeable improvement in performance in school.

The most needy children appear to benefit the most from Head Start. The most needy are identified in this context as children from families whose mothers had a tenth grade education or less, children from single parent families and children with low cognitive scores at the beginning of Head Start. Handicapped and Hispanic children made dramatic gains in Head Start, particularly in language skills. However, children from homes rated as conducive intellectual

environments also attained high cognitive outcomes. Children from small families gained more than children from large families.

Although minority children typically achieved substantial benefits, this pattern varied greatly depending upon the Head Start program's racial-ethnic composition. Children gained almost twice as much in racially mixed classrooms where the percentage of minority children was 26-89%, compared with classes composed of 90-100% minority preschoolers (see Table II).

Table II. Cognitive Gains by Percentage of Minority Children in Head Start Program

Racial-Ethnic Composition	Effect Size
26-89% Minority	.47 (n=114; S=18)
90-100% Minority	.25 (n=87; S=18)

Program impact was assessed at three different intervals. First, right at the end of the Head Start program year (short term effects). Second, at the end of the second grade (intermediate effects). Finally, from the third grade through high school (long term effects). Short term effects reflected large and consistent improvements in intellectual functioning. Head Start children tended to outperform their peers who did not attend Head Start at the end of second grade, and sometimes held these gains into later school years. Table III displays the extent to which both short term and intermediate effects increased as the Head Start program matured.

Table III. Cognitive Gains by Interval After Head Start

Interval	1965-69	1970-81
Gains Measured Before or at	.39	.70

the End of Head Start	(n=99; S=18)	(n=103; S=18)
Gains Measured up to	.13	.43
Three Years After Head Start	(n=82; S=13)	(n=25; S=7)

Relatively few studies assess long term effects, and analyses in this area do not yet reveal a conclusive picture of findings. Preliminary meta-analyses argue for caution in interpreting the long term benefits of participation in Head Start. A few long term studies, however, suggest a pattern of lasting effects parallel to that in the research oriented preschool experiments. On measures of success in school such as retention in grade, teacher ratings, staying in school and placement in regular classes (as opposed to special education), Head Start graduates usually fared better, sometimes through high school graduation.

Although Head Start's impact is impressive in helping move children closer to equal educational opportunity, the program by itself is not sufficient to overcome generations of poverty and discrimination. Head Start is no "magic bullet." At no interval were Head Start gains of sufficient magnitude to enable the average poor and minority child to equal the performance of the average middle class child in school or on standardized tests. Head Start on this score was able to do no better than research oriented preschool programs that, while otherwise displaying impressive and durable gains, have not proved able to fully close the opportunity gap (Lazar & Darlington, 1982).

Socioemotional Development

Unlike the cognitive domain, where Head Start graduates, despite substantial gains, tend to fall behind middle class children, they are more likely to keep up in social and emotional development. Aspects of children's socioemotional development affected favorably by Head

Start include social development, task orientation, curiosity and socialization of handicapped children. Many other areas have been researched, but without significant socioemotional outcomes being reported. This lack of outcomes may be due to inadequate research tools and methods in this domain rather than to characteristics of Head Start programs and children (Katz & Jacobson, 1978).

Head Start children are usually found to be more aggressive and more attention seeking, but also more sociable and assertive than their peers. Children from some types of Head Start curricula maintain superiority on social participation through the second grade relative to comparable youngsters.

Head Start tends to increase task orientation, and task orientation has been found to correlate with intelligence in children. Curiosity and exploratory behavior may be enhanced by less didactic programs, particularly in full day Head Start centers.

Head Start is eminently successful at socially integrating handicapped children. Handicapped children who are speech impaired, physically handicapped or mentally retarded are particularly prone to show gains in social and emotional behaviors.

Health

Poor and minority children experience serious health and nutritional problems. They are more vulnerable to prenatal, birth and postnatal complications. On entering Head Start, children are unlikely to have seen a physician for two years or more and may never have been examined by a dentist. More than half will not have been immunized against childhood diseases.

Head Start programs universally provide immunizations, diagnosis, treatment, meals and snacks and other health services, not otherwise

available to alleviate these developmental constraints. High percentages of children receive medical screening (87%) and dental exams (82%) and, of those needing treatment, many, but hardly all, receive it.

The number of Head Start children with up-to-date immunizations is 94% or better. Migrant children experience greater difficulties in being immunized and accessing other medical and dental services, which likely in part results from the difficulties of states and localities in responding flexibly to the acute needs of this transient population. Recent evidence suggests that there is considerable unevenness in the management of the health component nationwide, resulting in some Head Start participants in medically underserved communities receiving a much lower level of medical, dental and nutritional services.

Head Start children generally improve in hemoglobin levels, motor control, and physical development relative to comparison children after receiving Head Start services. They are more likely to be of normal height and weight than controls, to have fewer absences from school and to perform better on physical tests.

Twelve percent of the children in Head Start have been professionally diagnosed as handicapped; the majority of handicapped children served are mildly to moderately impaired. Handicapped children receive the full range of health and other Head Start services as well as special education and other services.

Families

Head Start's parent involvement component is providing opportunities for parents to become involved in a variety of ways. Many and varied avenues are open to participate as decisionmakers, as employees and as

volunteers (although a minority of parents contribute a majority of the volunteer hours). Parents comprise 89% of the members of policymaking councils and committees. They make up 27% of Head Start staff. Parent volunteers are used in 79% or more of Head Start programs. For every three Head Start children, two parents volunteer. In a nationwide study, 81% of parents reported participating in home visits compared with 43% of parents (of higher socioeconomic status) enrolled in other preschools.

Several studies have reported academic gains for children of involved parents. Comparing cognitive outcomes for children in families whose parents were highly involved in Head Start versus families with low involvement, the children whose parents rated high scored .24 standard deviations above those children whose parents were less involved in the program. In one follow up study that documented striking long term gains for former Head Start participants, parents of students who had graduated fromn high school more often reported they had been actively involved in Head Start activities or served as volunteers than parents of drop-outs.

Parent attitudes toward Head Start are uniformly highly favorable, with almost all parents expressing satisfaction that their children's performance exceeded their expectations. A typical example of this subjective support for the program is a nationwide study in which 97% of the parents said they would send their younger children to Head Start. Some studies have linked parents' attitudes with more regular child attendance; improved attendance in turn tends to predict higher achievement scores.

Some positive effects of Head Start have been noted on childrearing and parent-child interaction. A minority of parents continue to value

Head Start most highly as "babysitting."

For some families, Head Start assists in attaining a greater degree of social and economic self-sufficiency. In one nationwide study, 8% of parents reported that Head Start had helped them to find a job and 9% reported that Head Start had helped them to further their education.

Most findings relate to benefits for parents or changes in parent-child interaction; although many of the findings are noteworthy, the weak methodology in most research on this topic compels caution in making causal inferences about the impact of Head Start pending further analyses. Very few studies deal with the status of Head Start siblings or other family members, so little is known, except for the consistently favorable anecdotal reports, about the effects of Head Start on the family as a whole.

Communities

Head Start has a profound impact on the over 1,200 communities in which the program is located by providing jobs and services. This occurs directly through the employment of over 70,000 staff, 59% of whom are minorities, and indirectly through the broad scope of program activities. For example, economic benefits accrue to parents who are able to hold a job as a result of their child's participation in part day or full day Head Start.

The Head Start program facilitates community level coordination of services on a large scale, but the extent to which it increases the utilization of services is less clear. Virtually all Head Start programs participate in nutritional services through the Child Care Food Program or the School Lunch Program. Of the children enrolled, 46% participate in the Medicaid Early and Periodic Screening, Diagnosis and Treatment Program. Seventy-five percent of

participating families received social services from Head Start or another agency. Fifty-five percent of handicapped children received services from other agencies and individuals.

Head Start programs exert a positive influence on the public schools by increasing parental participation in the schools and through encouraging visits between preschool and kindergarten classrooms. A number of Head Start concepts have been adopted by the public schools, including use of paraprofessionals in the classroom, adoption of curricula and teaching strategies sensitive to the needs and values of the poor and minorities and establishing programs for younger children. There is evidence that Head Start increases parental participation in the community, but the only nationwide study indicates that parents most active in Head Start were involved in their communities prior to enrolling in Head Start.

The only nationwide study of the impact of Head Start on communities was completed in 1970. This compared changes in 58 Head Start communities with seven non-Head Start areas. A total of 1,496 changes related to Head Start's objectives were identified in the program areas, while few such changes were found in the non-Head Start communities. The changes included greater educational emphasis on the needs of poor and minorities; modification of health services and practices to serve children better; increased involvement of low income persons in community decisionmaking and increased employment of local people in paraprofessional jobs.

Strengths and Weaknesses of the Methodology

The Head Start Synthesis Project is unique in several respects. It reflects a sophisticated application of the latest in meta-analysis techniques, complemented nicely by a traditional literature review.

The twin approaches permit a thorough mining of the Head Start research and evaluation data base accumulated over nearly two decades. An authoritative "yes" can now be given to the somewhat shopworn query, "does Head Start work?" This issue has been probed in many dozens of studies and the consensus of findings is compelling. Moreover, the mature Head Start that evolved after 1970 works far better than the Head Start of the start up years from 1965-69. Meta-analysis confirms what earlier studies only hinted at (Collins, 1981).

On relatively straightforward issues such as these, where an ample body of evidence exists, the Synthesis Project's methodology demonstrates its power. It emerges as superior to research strategies all too common in the past that rely on the "one shot" field experiment, such as the outdated Westinghouse evaluation, or a "catch-as-catch-can" research survey of readily available studies.

The project's methodology continues to evolve and it is premature to venture a balanced assessment of pros and cons. One glaring weakness should be underscored at this stage, however, The approach is hostage to the data base. Nothing can be productively analyzed that has not been researched fairly extensively in a Head Start setting. Otherwise the small number of studies/comparisons/effect sizes leads to quirky and inexplicable results. While perhaps too obvious to mention from the perspective of the informed outsider, this point was slow in dawning on those of us close to the project.

The brutal fact is that many of the most important topics that mediate quality early childhood education have not been central to Head Start's research and evaluation agenda over the years. Few well designed studies have examined such crucial topics as the impact of

parent involvement on child learning, classroom composition, teacher training, teaching strategies, curriculum and continuity of intervention over time. Little attention has been paid to the search for lasting benefits and most of the longitudinal studies have their roots in the weaker Head Start of the start up period.

One of the principal contributions of the Synthesis Project may be in highlighting the extent to which researchers have tended to plow the same ground again and again, leaving nearby fertile fields untouched. A research agenda for the future could be readily distilled from this thoroughgoing survey.

This is not to say that the past research has not had considerable payoff. Programs tailored to the poor and minorities have to work harder than most to justify their existence. Head Start's survival and funding support in a period of budgetary austerity represents a tribute both to its grassroots popularity and to the painstakingly amassed hard evidence of effectiveness. Beyond that, Head Start experimentation and innovation have pioneered new modes of child care that are transforming our way of thinking of programs for children and their families. One has only to mention Home Start, the Child Development Associate (CDA), Parent Child Centers, mainstreaming handicapped children and bilingual initiatives as examples of influential program models.

Implications for Practice

These preliminary findings provide impressive support for Head Start's effectiveness. Indeed, these results, considered in the context of the lasting gains and emerging cost-benefit data on research oriented preschool programs, compel a change in the focus of public policy. The pivotal issue in early childhood programs is no longer "is

preschool education effective?" or "does Head Start work?"

The emerging issues are twofold. First, "how do we identify and put in place those combinations of program variables that lead to the greatest developmental gains at reasonable cost?" And second, "how do we insure continuity of learning and developmental gains achieved in preschool and the home into the public schools?"

Little hard data are available on those factors that produce gains in early childhood programs. For the reasons cited above, too much cannot be expected of the Head Start Synthesis Project in resolving these complex and little studied issues. Fortunately, several pioneering studies in child care and early childhood education are beginning to identify the critical factors. A consensus is emerging on some of the pivotal program variables (Bush and White, undated; Collins, 1981; Collins, 1983; Slaughter, 1982; Weikart, 1982; Zigler and Berman, 1983; Zigler and Lang, 1983). These include:

- o Extensive parent involvement in all areas of the program;
- o Teacher training through the Child Development Associate (CDA) and other staff training programs;
- o A carefully designed and implemented educational/developmental curriculum; and
- o High quality, cost-conscious program management and monitoring.

Less progress has been made in identifying strategies to bridge Head Start and other child care experiences and the schools. A beginning can be made if educational strategists and policymakers view Head Start and other quality child care programs as the foundation for educational excellence. Preschool and the home can then become the springboard for life-long learning and the fulcrum for a national

effort at educational reform and for responding to the child care needs of families of all walks of life.

References

"A Nation At Risk: The Imperative for Educational Reform," Report of the National Commission on Excellence in Education, Washington, D. C., April 1983.

Bush, D. W., and White, K. R., "The Efficacy of Early Intervention: What Can Be Learned from Previous Reviews of the Literature," undated manuscript.

Cicirelli, V., et al. Westinghouse Learning Corporation/Ohio University. The Impact of Head Start. Springfield, Va.: Clearinghouse for Federal Scientific and Technical Information, U. S. Department of Commerce, 1969.

Collins, R. C. "Children and Society: Child Development and Public Policy." Ph.D. dissertation, Princeton University, 1981.

Collins, R. C., "Child Care and the States: The Comparative Licensing Study," Young Children, July, 1983.

Collins, R. C., "Head Start: An Update on Program Effects," Society for Research in Child Development Newsletter, Summer, 1983, 1-2.

Collins, R. C., and Deloria, D., "Head Start Research: A New Chapter," Children Today, July-August, 1983, 15-19.

CSR, Inc., "A Review of Head Start Research Since 1970 and An Annotated Bibliography of the Head Start Research Since 1965," Head Start Evaluation, Synthesis and Utilization Project, 1983a.

CSR, Inc., "A Review of Head Start Research Since 1970," Head Start Evaluation, Synthesis and Utilization Project, 1983b.

CSR, Inc., "The Effect of the Head Start Program on Children's

Cognitive Development," Head Start Evaluation, Utilization and Synthesis Project, 1983c.

CSR, Inc., "The Impact of Head Start on Families," Head Start Evaluation, Synthesis and Utilization Project, Draft Report, 1984a.

CSR, Inc., "The Impact of Head Start on Communities," Head Start Evaluation, Synthesis and Utilization Project, Draft Report, 1984b.

Katz, L. J., & Jacobson, E. "Measures of Development among Young Children: Socio-Emotional Domain," Mediax Associates, Inc., Administration for Children, Youth and Families Contract No. HEW-105-77-1066, May 1978.

Lazar, I., & Darlington, R. "Lasting Effects of Early Education: A Report from the Consortium for Longitudinal Studies," Monographs of the Society for Research in Child Development, Serial No. 195, Vol. 47, Nos. 2-3.

Mann, A. J., et al. A Review of Head Start Research Since 1969, Social Research Group, George Washington University, July 1977.

Schweinhart, L. J., & Weikart, D. P. Young Children Group: The Effects of the Perry Preschool Program on Youths Through Age 15. Monographs of the High/Scope Educational Research Foundation, Number Seven, 1980.

Slaughter, D. T. "What Is the Future of Head Start?" Young Children, March 1982, 3-9.

Weber, C. U., Roster, P. W., & Weikart, D. P. An economic analysis of the Ypsilanti Perry Preschool Project, Monographs of the High/Scope Educational Research Foundation, Number Four, 1978.

Weikart, D. P. "The Cost-Effectiveness of High Quality Early Childhood Programs," A presentation for the Southern Governors' Conference, Hilton Head Island, South Carolina, July 26, 1982.

Zigler, E., and Berman, W., "Discerning the Future of Early Childhood Intervention," American Psychologist, August, 1983, 894-906.

Zigler, E., and Lang, M. E., "Head Start: Looking Toward the Future," Young Children, September, 1983, 3-6.

Zigler, E., & Muenchow, S., et al. Head Start in the 1980s: Review and Recommendations, A Report Requested by the President of the United States, September 1980, Head Start Bureau, Administration for Children, Youth and Families, Office of Human Development Services, Department of Health and Human Services.

Zigler, E., & Valentine, J. (Eds.). Project Head Start: A Legacy of the War on Poverty. New York: Free Press, 1979.